

## Wilkening, Matt

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**From:** Stan.Christensen@deq.idaho.gov  
**Sent:** Monday, April 23, 2018 4:42 PM  
**To:** Wilkening, Matt  
**Subject:** RE: 2016 Annual Rpt for Habitat Mgmt. and Envir. Monitoring at Smoky Canyon Tailings ponds.

Matt,

I am in the process of preparing my response to this document. I've reviewed Section 3.1.1 and Table 3-1 and I don't see where surface water exceeds 5 ug/l. Could you give me more clarity on what you are seeing?

Stan Christensen  
Regional Mining Project Manager  
Department of Environmental Quality  
208-236-6160  
Stan.Christensen@deq.idaho.gov

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**From:** Wilkening, Matt [mailto:Wilkening.Matt@epa.gov]  
**Sent:** Wednesday, March 21, 2018 4:21 PM  
**To:** Stan Christensen  
**Subject:** 2016 Annual Rpt for Habitat Mgmt. and Envir. Monitoring at Smoky Canyon Tailings ponds.

Stan,

I reviewed the document noted above and have no issues with the revisions. One thing I do note is the discussion in Section 3.1.1, Surface Water. In this section Simplot notes that the surface water does not exceed the State Se criterion. But I noticed that it does exceed EPA's current Se criterion of 8 ug/l. Also, I understand that Idaho is in the process of revising their Se criterion. But I don't know when this will occur. Under CERCLA the responsible party should meet the most protective criteria. This is probably something that should be tracked and Simplot made aware of.

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*3 ccg/l*

March 6, 2018

Mr. Stan Christensen  
Idaho Department of Environmental Quality  
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Reviewed  
3/21


**Subject: Revisions and Responses to Agency Comments for the 2016 Annual Report for Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments**

Dear Stan,

Please find attached Simplot's revisions to the 2016 Annual Report for Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments, and Simplot's responses to the Agency comments received February 17, 2018. A mark-up copy of the revised report has also been included to assist review.

Please contact Ron Quinn (208-873-3720) with any questions.

Sincerely,



Ron Quinn  
J.R. Simplot Company

Encl

2016AnnualReport\_AreaB\_2018 revisions.pdf – Revised Report  
2016AnnualReport\_AreaB\_2018 revisions mark-up.docx – Revised Report Mark-up  
SmokyAreaB\_2016AnnualReport\_2018 RTCs.pdf – Responses to Comments

cc: Kathryn Venable – IDEQ, email only  
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Matt Wilkening – USEPA, email only  
Jeffrey Hamilton – J.R. Simplot Company, email only

US EPA

MAR - 9 2018

IDAHO OPERATIONS OFFICE

## **2016 Annual Report**

### **Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments**

**August 2017**

*(Revised March 2018)*

*Prepared for:*

**J.R. Simplot Company**  
Smoky Canyon Mine  
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Afton, WY 83110

*Prepared by:*



**Formation Environmental, LLC**  
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## LIST OF ACRONYMS

A2Z	A2Z Vegetation and Pest Management LLC
AMSL	Above Mean Sea Level
AOC	Administrative Order on Consent
BERA	Baseline Ecological Risk Assessment
BMPs	Best Management Practices
COPCs	Chemicals of Potential Concern
EE/CA	Engineering Evaluation/Cost Analysis
IDEQ	Idaho Department of Environmental Quality
IDL	Idaho Department of Lands
IDWR	Idaho Department of Water Resources
JBR	JBR Environmental Consultants, Inc.
mg/L	milligrams per liter
NWP	Nationwide Permit
RI/FS	Remedial Investigation/Feasibility Study
SI	Site Investigation
SOW	Statement of Work
T/E	Threatened/endangered
TP-1	Tailings Pond No. 1
TP-2	Tailings Pond No. 2
USEPA	U.S. Environmental Protection Agency
USFS	U.S. Forest Service
USFWS	U. S. Fish and Wildlife Service

## 1.0 INTRODUCTION

J.R. Simplot Company (Simplot) owns and operates the Smoky Canyon phosphate mine in southeastern Idaho (Figure 1-1). In January 2003, Simplot entered into an Administrative Order on Consent (AOC) with the Idaho Department of Environmental Quality (IDEQ), the U.S. Forest Service (USFS) and the U.S. Environmental Protection Agency (USEPA) to investigate the potential environmental effects of phosphate mining and milling operations at the Smoky Canyon Mine and in the immediate vicinity. The AOC and its accompanying Statement of Work (SOW) provide a mechanism to address any environmental conditions resulting from past mining activities that represent a risk to human health or the environment.

The AOC divides the mine into two areas of study (Figure 1-2). Area A is the area of historical mineral extraction from Federal lands for which a Site Investigation and Engineering Evaluation/Cost Analysis (SI and EE/CA) were conducted and a Remedial Investigation and Feasibility Study (RI/FS) is currently in progress. Area B encompasses the Smoky Canyon Mine tailings disposal area, which is located on Simplot-owned property in Tygee Valley just east of Area A. IDEQ was designated as Lead Agency for the Area B investigations, which occur solely on privately-owned lands, and the USEPA and U.S. Fish and Wildlife Service (USFWS) were formally designated as Area B Federal support agencies. The Idaho Department of Lands (IDL) and Idaho Department of Water Resources (IDWR) were named as state support agencies with the intent of adopting any newly developed management practices or operational/design modifications through the jurisdictional amendment process for the existing site reclamation and dam abandonment plans, respectively. Area B activities are being conducted separately from the Area A SI and EE/CA and RI/FS due to the different operational and permitting status of the tailings disposal area.

The two Area B tailings impoundments, Tailings Pond No. 1 (TP-1) and Tailings Pond No. 2 (TP-2), are currently active and are expected to receive tailings until mining is completed at Smoky Canyon Mine. TP-1 was used for tailings deposition from 1983 to 1991 and it is currently used as a reservoir for storing mill water. The TP-2 impoundment has received tailings from the mill since 1991 and will continue to do so through the current estimated mine life. After deposition, the tailings settle out and the water is pumped from TP-2 to TP-1. The water is then pumped back to the mill for use as process water, as needed. Additional water enters the impoundments from direct precipitation, runoff from the mill site and surrounding areas, the site Industrial Well, and



from the Roberts Creek drainage. There is no direct discharge from the impoundments to surface drainages.

Pursuant to the AOC, Area B investigation activities included a Groundwater and Environmental Media Investigation (MFG 2003a), a Baseline Ecological Risk Assessment (BERA) (MFG 2003b), and a final Recommendations Report (MFG 2004). The Recommendations Report presents a complete summary of the findings of the Groundwater and Environmental Media Investigation and BERA and provides related recommendations regarding the ongoing operation and maintenance of the two impoundments and modification of the existing closure and reclamation plans.

Based on the findings of the Recommendations Report (MFG 2004), a draft Revised Operations, Reclamation and Dam Abandonment Plan (Revised Plan) was submitted to the Agencies in February of 2005 (NewFields 2005). In a letter dated April 18, 2005, IDEQ conditionally approved the operational portion of the draft Revised Plan. Simplot submitted an amendment to the draft Revised Plan (Formation 2014) in March 2014, and Simplot finalized revisions based on Agency comments to the Reclamation Plan in August 2017. A separate Dam Abandonment Plan will be submitted in 2018.

As required by Section 3 of the IDEQ-approved Revised Plan, an Annual Report detailing best management practices (BMPs) and Environmental Monitoring activities conducted during the previous calendar year shall be submitted to the agencies annually.

Environmental monitoring activities are conducted at the tailings ponds to satisfy requirements of the Section 404 permit (Nationwide Permit [NWP] No. 071-OYC-4-003253 and Modification No. 2) and to address Area-Wide risk management goals and site-specific recommendations (MFG 2004) developed as a result of the AOC investigations (MFG 2003a, MFG 2003b). Best management practices and monitoring activities to be conducted during operation of the impoundments were originally summarized in the Operations Action Matrix of the Revised Plan (NewFields 2005) (amended in 2014 [Formation 2014]). Specifications for some of those activities have been modified over time, in accordance with various requests and/or approvals from IDEQ and the support agencies; the current version of the Operations Action Matrix is presented in Table 1-1 of this report. This Annual Report details the BMPs (Section 2) and environmental monitoring activities (Section 3) conducted in 2016.



## **2.0 BEST MANAGEMENT PRACTICES**

The Area B BERA (MFG 2003b) concluded that adverse effects of selenium to resident waterfowl are possible; however, broader ecological risk appears to be minimal, especially when the limited potential for adverse effects on populations are considered. Based on the findings of the BERA, two new environmental monitoring actions were added, as reported in the Recommendations Report (MFG 2004) and Revised Plan (NewFields 2005). The new monitoring objectives and actions are identified below:

- actions to reduce and control the presence of shoreline nesting habitat available to waterfowl; and
- monitoring to demonstrate that the actions taken have effectively discouraged nesting by the resident waterfowl population.

Monitoring activities designed to provide data needed to fulfill these objectives were added to the Revised Plan in 2005 (amended in 2014 [Formation 2014]) and are summarized in Table 1-1 of this report (i.e., habitat elimination, on-the-ground vegetation surveys, and brood count monitoring and nesting location scoping).

### **2.1 On-the-Ground Vegetation Surveys**

As specified in the Revised Plan, Simplot is required to conduct on-the-ground vegetation surveys annually (Table 1-1). The goal of the survey is to re-visit areas that had been scraped and/or sprayed in previous years to document the current conditions, and to note areas that may need additional herbicide application to eliminate vegetation that could be attractive to nesting birds (e.g., cattails, tall grasses along shoreline, etc.). Due to high water levels, these surveys could not be conducted in 2016. However, vegetation was reviewed by Simplot's contractor to identify areas to be sprayed with herbicide.

### **2.2 Brood Count Monitoring and Nesting Location Scoping**

As described in the Revised Plan and summarized in the current Operations Action Matrix in Table 1-1, nest surveying efforts (brood count monitoring and nesting location scoping, including general waterfowl/avian use of the ponds) by wildlife biologists should occur during the nesting season for three years, then once every five years for the life of the ponds. These surveys were

conducted in Fall 2006, Spring 2007, Spring 2008, Spring 2009, and Spring 2015. For details regarding previous surveys please refer to the Final 2008-2009 Annual Report (Formation 2010) and the Final 2015 Annual Report (Formation 2017).

Site Supervisors are required by Simplot to specifically document any waterfowl nests or threatened/endangered (T/E) species observed at the ponds in the Wildlife Monitoring section of the BMPs Inspection Form ("Environmental and Best Management Practices Effectiveness Monitoring"). The completed forms for 2016 were reviewed and no T/E species were reported. Copies of the Inspection Forms are maintained on-site for agency review.

### 2.3 2016 Habitat Elimination

Actions are taken annually to reduce and control the presence of shoreline nesting habitat available to waterfowl (Table 1-1) as identified in Figure 2-1 (2016 actions) and Figure 2-2 (2007-2015 actions). Generally, plant diversity around the ponds is low, with the herbaceous vegetation dominated by beaked sedge (*Carex utriculata*) and Baltic rush (*Juncus balticus*) at the water edge, and grasses such as tufted hairgrass (*Deschampsia cespitosa*), smooth brome (*Bromus inermis*), and foxtail barley (*Hordeum jubatum*) further from the soil/water interface. Woody vegetation is very limited with scattered willow (*Salix* spp.) and a few individual aspen trees (*Populus tremuloides*). Mapping of potential nesting habitat for the Area B BERA indicated that a few small pockets of vegetation at the northwest corner of TP-1 had the greatest potential for waterfowl nesting. Limited potential nesting habitat was identified along the TP-2 pond margin. This difference is due to the fact that the footprint area of TP-1 has been static for several years while the TP-2 footprint has been increasing in response to tailings input, and the TP-2 margins have been scraped and graded accordingly.

The potentially suitable nesting habitat around the margins of TP-2 identified in the Revised Plan was eliminated prior to 2005 by Simplot personnel during the process of topsoil stripping for TP-2 dam construction and preparation work (and some of the stripping was to stockpile the topsoil for post-use capping). Since 2005, Simplot and their contractors have controlled vegetation in potentially suitable nesting habitat through a combination of application of various herbicides, chemical mowing, and mechanical control (i.e., stump cutting).



In 2016, Simplot's contractor, A2Z Vegetation and Pest Management LLC (A2Z) spot-treated areas along the shorelines and access roads in the area with Opensight® (USEPA registration number 62719-597; rate of 3.3 oz. per acre). The target vegetation included Musk Thistle, Canada Thistle, Dyer's Woad, Hounds Tongue, Black Henbane, Mullein, Yellow Toadflax, Perennial Pepperweed, and Leafy Spurge. Noxious weeds (i.e., heavy thistle infestation) were also sprayed in other areas within Simplot's property boundaries. The increasing water level around the ponds provides only upland vegetation near the shoreline.

Refer to Section 2.1 and Section 2.2 for more information about vegetation and nesting monitoring.

## **2.4 Camera Monitoring**

Although not required, Simplot installed two automatic cameras at TP-2 in 2016 to aid in the efforts to identify ice conditions and seasonal use of the tailings ponds by waterfowl. The Camera installed at TP-1 failed to produce photos after two attempts. A new camera will be ordered for 2017. The locations of the two cameras installed in 2016 are depicted on Figure 2-3. Note that camera directions are approximate and camera sightlines may shift direction over time due to weather conditions and/or wildlife. The cameras are equipped with light sensors and take one photograph per hour from 6 am until 6 pm. The cameras are removed, serviced (e.g., seals replaced, batteries charged), and stored in the winter months and then reinstalled the following year. New cameras have been purchased for the 2017 season.

Selected 2016 photographs are included in Appendix A. The photos collected in 2016 supplement the library of photos from 2010 through 2015. In addition to the photos obtained from the established cameras, photographs taken by Simplot staff at the tailings ponds also help to periodically document conditions. This time-series of photos provides useful information about the snow and ice conditions at TP2, condition of vegetation at the shoreline near the cameras, as well as the presence, abundance, and type of waterfowl at the TP2 through time.

In 2016, pond ice melt occurred by late April. In the last seven years, ice melt has occurred between the end of March and beginning of June, depending on the spring temperatures and the timing and quantity of spring precipitation. There have been some years with wet late-spring

conditions, when ice melt occurred as late as June (e.g., 2011). In contrast, ice melt has occurred at the end of March/beginning of April in some years with drier spring conditions (e.g., 2012).

## 2.5 Predator Decoys

During a meeting involving Simplot and USFWS that took place on April 14, 2014, agency personnel recommended the placement of multiple predator (coyote) decoys around the ponds, particularly where nesting is most heavily concentrated. The agencies also recommended that decoys/deterrents should be moved to different locations around the tailings ponds on a weekly-biweekly basis to avoid the waterfowl becoming habituated to them.

As recommended, coyote decoys were placed at the ponds on May 19, 2016. The decoys (3-5 at a time) were moved on June 13, July 11, July 25, August 17, and September 14, 2016. Decoy locations are depicted on Figure 2-3. No visible effects on nesting/use of the area were observed by Simplot personnel. Simplot is uncertain about the usefulness of the decoys but will continue to deploy and move them. Any useful observations or qualitative assessments of their efficacy (e.g., photos of birds using [or not using] areas around the decoys) will be included in future reports.



### **3.0 ENVIRONMENTAL MONITORING**

The Groundwater and Environmental Media Investigation (MFG 2003a) focused on characterization of tailings and water in the tailings impoundments and the fate and potential transport of tailings constituents, especially selenium and the other chemicals of potential concern (COPCs). That investigation indicated that COPCs were not being released from the impoundments at measurable levels and existing transport pathways had no observable effect on either surface water or groundwater quality downgradient of the impoundments (MFG 2003a).

In addition to the existing monitoring requirements in the 404 Permit, the Groundwater and Environmental Media Investigation added two new environmental monitoring actions, as reported in the Recommendations Report (MFG 2004). The objectives of the two additional monitoring actions are to:

- track conditions at the impoundments during their ongoing use for tailings disposal by monitoring the effect of water-level elevation on water quality; and
- identify changes in water quality that may be indicative of release from the impoundments through periodic chemical characterization of tailings.

Monitoring activities designed to provide data needed to fulfill these objectives were added to the Revised Operations and Maintenance Plan in 2005 and are summarized in Table 1-1 of this report.

#### **3.1 Water Quality Monitoring**

Water quality monitoring activities and results for 2016 are discussed in this section, along with general comparisons with data from previous years.

##### **3.1.1 Surface Water**

Water from the TP-2 toe drain location (TP-2TD) was sampled in February, May, July, and November 2016 (Figure 3-1). The sampling and analysis was coordinated with water quality monitoring activities already being performed by the Simplot mine staff. The TP-2 toe drain samples were submitted for analysis of the parameters specified in the 404 Permit (sodium, chloride, specific conductance) and the mine's Comprehensive Environmental Monitoring

Program Plan (Formation 2015a) (dissolved cadmium and total recoverable selenium). Monitoring of dissolved cadmium and total recoverable selenium concentrations provides additional indicators of changes in surface water quality that may be related to a release from the impoundments.

Table 3-1 presents the historical and 2016 chemical data collected at the TP-2 toe drain. The data collected in 2016 indicate that total and dissolved selenium concentrations in surface water at the toe drain varied seasonally, but were all less than 0.005 milligrams per liter (mg/L). The highest total and dissolved selenium concentrations of the year (0.00440 mg/L and 0.00460 mg/L, respectively) were observed in May. Cadmium concentrations remained relatively constant and less than 0.0001 mg/L throughout the year. Cadmium and selenium concentrations at the TP-2 toe drain have remained relatively unchanged since the time of the Groundwater and Environmental Media Investigation in 2002, and the concentrations are below applicable surface water quality standards (Table 3-1).

Sodium and chloride concentrations in 2016 were somewhat variable, but remained consistent with past observations at the TP-2 toe drain (Table 3-1). Chloride concentrations at TP-2 toe drain ranged from 46.5 to 109 mg/L in 2016 and are generally comparable to historical concentrations reported since construction of the impoundment in 1991, with the exception that the highest concentration in 2016 (109 mg/L) exceeded the previous historical high of 95.5 mg/L. As noted in MFG (2002), chloride concentrations in the lower Tygee Creek have been typically less than 100 mg/L since TP-2 construction in 1991. Before the construction of TP-2, chloride concentrations routinely exceeded 1,000 mg/L in both lower Tygee Creek and lower Roberts Creek, as a result of the saline flats present in the TP-2 area. Sodium concentrations at TP-2 toe drain ranged from 30.5 to 42 mg/L in 2016; note that the highest concentration in 2016 (42 mg/L) exceeded the previous historical high of 39 mg/L. Since TP-2 construction in 1991, sodium concentrations have been typically less than approximately 40 mg/L, compared to as high as 1,895 mg/L before construction of TP-2 (MFG 2002).

### 3.1.2 Groundwater

Groundwater levels were measured and groundwater samples were collected at monitoring well GW-12 during the spring (May), summer (July), and fall-winter (November) quarters of 2016. Well



GW-12 was installed during July/August 2000 near the base of the TP-2 dam (Figure 3-1), and the well is screened across shallow alluvial deposits in the Tygee Creek drainage downgradient of TP-2 (JBR Environmental Consultants, Inc. [JBR] 2001, MFG 2002). The groundwater level measurements recorded at GW-12 from 2008 through 2016 are listed in Table 3-2. The groundwater level at GW-12 was measured at 6,372.3, 6,371.9, and 6,371.2 feet above mean sea level (AMSL) during the three 2016 monitoring events. Refer to Table 3-3 for local precipitation records for the 10 years from 2007 through 2016.

The groundwater samples collected from well GW-12 in 2016 were analyzed for total cadmium, total and dissolved selenium, sodium, chloride, and specific conductance (Table 3-2). The data collected in 2016 indicate that cadmium and selenium concentrations remained low at GW-12 compared to concentrations observed at the time of the Groundwater and Environmental Media Investigation in 2002 (0.001 mg/L total cadmium and 0.004 mg/L total selenium). Total cadmium concentrations were not detected (0.000021 and 0.0001 mg/L detection limits) during the monitoring events in 2016. Total selenium concentrations ranged from not detected (0.0012 mg/L detection limit) to 0.0024 mg/L in 2016.

Sodium and chloride concentrations in groundwater at GW-12 appear to be gradually increasing since 2000 (Table 3-2). Groundwater monitoring conducted in 2002 at two deeper, Salt Lake Formation monitoring wells in the immediate vicinity of GW-12, indicated that deeper Salt Lake Formation groundwater has very high sodium (1,870 to 5,980 mg/L) and chloride (2,900 to 8,530 mg/L) concentrations (MFG 2003a). The highest concentrations for GW-12 in 2016 were 159 mg/L sodium and 579 mg/L chloride. GW-12 is installed in unconsolidated surficial deposits that include weathered Salt Lake Formation material, which is the most likely source of sodium and chloride to groundwater at GW-12. Changes in sodium and chloride concentrations over time at GW-12 are likely due to changes in the relative mixing proportions of (1) relatively saline groundwater in weathered Salt Lake Formation and (2) lower salinity/fresh recharge water originating from the Tygee Creek diversion channel and slope runoff within the Tygee Creek drainage, which enters the shallow groundwater flow system in the vicinity of GW-12. As indicated above, no significant changes in cadmium or selenium concentrations were observed in shallow groundwater during the same time period. For this reason, water from the tailings impoundment is not considered a likely source of sodium and chloride to shallow groundwater at GW-12.

### 3.2 Periodic Chemical Characterization of Tailings

Pursuant to the Recommendations Report (MFG 2004), periodic chemical characterization of tailings is to be conducted following any changes in mill operations or change in the type of ore processed by the mill, or at least every 3 years, whichever is more frequent (Table 1-1). Examples of changes in mill operations include changes to the flotation process or to the gross physical characteristics of tailings (e.g., average grain size). The purpose of this monitoring activity is to identify any changes in the characteristics of new tailings disposed at the impoundments that may represent a change in risk for ecological receptors during ongoing operation of the impoundment.

No change in mill operations occurred during the period covered by this Annual Report. Characterization of the tailings was last conducted in 2014 (Formation 2015b). Tailings material will be sampled again in 2017, or sooner if there are significant changes in mill operations.



#### 4.0 REFERENCES

- Formation Environmental, LLC (Formation). 2017. Annual Report 2015, Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments. Prepared for J.R. Simplot Company. March.
- Formation Environmental, LLC (Formation). 2015a. Smoky Canyon Mine Comprehensive Environmental Monitoring Program Plan Revision No. 4. Prepared for J.R. Simplot Company. August 2015. Replacement pages February 2016.
- Formation Environmental, LLC (Formation). 2015b. Annual Report 2014, Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments. Prepared for J.R. Simplot Company. July, with October submittal of replacement pages.
- Formation Environmental, LLC (Formation). 2014. Amendment to Draft Revised Operations and Abandonment Plan for the Smoky Canyon Mine Tailings Impoundments. Prepared for J.R. Simplot Company. March.
- Formation Environmental, LLC (Formation). 2010. Annual Report 2008-2009, Draft Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments. Prepared for J.R. Simplot Company. July.
- JBR Environmental Consultants, Inc. (JBR). 2001. Technical Report 3.0, Water Resources, Smoky Canyon Mine, Panels B&C SEIS. Prepared for Bureau of Land Management and U.S. Forest Service, March 2001.
- MFG, Inc. 2004. Smoky Canyon Mine Area B (Tailings Impoundments) Final Tailings Impoundments Recommendations Report. Prepared for J.R. Simplot Company. January 2004.
- MFG, Inc. 2003a. Draft Smoky Canyon Mine Area B (Tailings Impoundments) Groundwater and Environmental Media Investigation Report. Prepared for J.R. Simplot Company. September 18, 2003.
- MFG, Inc. 2003b. Draft Smoky Canyon Mine Area B Baseline Ecological Risk Assessment Report. Prepared for J.R. Simplot Company. July 2003.
- MFG, Inc. 2002. Smoky Canyon Mine Area B (Tailings Impoundments) Groundwater and Environmental Media Investigation Work Plan. Prepared for J.R. Simplot Company. November 2002.
- NewFields. 2005. Draft Revised Operations and Abandonment Plan for the Smoky Canyon Mine Tailings Impoundments. Prepared for J.R. Simplot Company. February 2005. Conditionally approved by IDEQ on April 18, 2005.

**TABLES**

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## FIGURES

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## APPENDIX A

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**Response to Comments from USFWS Review of "Draft 2016 Annual Report for Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments"**

**February 7, 2018**

**Page 1 of 2**

**General Comment**

*The two automatic cameras were installed in order to identify ice conditions and seasonal use of the tailings ponds by waterfowl. Unfortunately, both automatic cameras were installed on TP-2 when "the northwest corner of TP-1 had the greatest potential for waterfowl nesting (2.3 2016 Habitat Elimination, first paragraph)". It is recommended that at least one automatic camera be installed and pointed to the northwest corner of TP-1, or additional automatic cameras be installed in areas with the greatest potential for waterfowl nesting among the tailings ponds.*

Response: Ice conditions will be identified by visual observation and recorded. The cameras were installed for 2016, but did not work properly on TP1. The cameras were repaired/replaced for the 2017 reporting year.

**Specific Comments**

**1) Section 2.4, page 5, first paragraph, first sentence**

*The sentence states that the two automatic cameras were installed at the tailings ponds in 2016, when in fact the two cameras were installed at TP-2, not both TP-1 and TP-2.*

*Revise the sentence and state that the "two automatic cameras were installed at TP-2."*

Response: Revised in attached report

**2) Section 2.4, page 5, first paragraph, first sentence**

*After the first sentence insert, "No cameras were installed at TP-1" for necessary clarification.*

Response: Added for clarification in attached report, "The Camera installed at TP-1 failed to produce photos after two attempts. A new camera will be ordered for 2017."

**3) Section 2.4, page 5, first paragraph, fourth sentence**

*The automatic cameras were installed at only one pond (TP-2).*

**Response to Comments from USFWS Review of "Draft 2016 Annual Report for Habitat Management and Environmental Monitoring at the Smoky Canyon Mine Tailings Impoundments"**

**February 7, 2018**

**Page 2 of 2**

*Delete "at the ponds".*

Response: Deleted "At the Ponds" in attached report

**4) Section 2.4, page 5, second paragraph, third sentence**

*Appendix A only provides photos of TP-1 by Simplot staff on March 5, 2016 and April 21, 2016. The sentence claim that these photographs "document conditions throughout the year" is highly inaccurate. Revise the sentence, as well as the paragraph, to accurately reflect the time-series the photographs represent for TP-1 and TP-2, respectively.*

Response: Revised Sentence to read "Periodically document conditions" in attached report

**5) Section 2.4, page 5, second paragraph, third sentence**

*Revised the sentence to, "This time-series of photos provides useful information about the snow and ice conditions at TP-2, conditions of vegetation at the shoreline near the cameras, as well as the presence, abundance, and type of waterfowl at TP-2 through time."*

Response: Revised Sentence to read TP2 instead of "at the ponds" in attached report